

STRELCHUK, V.M.; YASHCHENKO, A.G.

Effect of stimulation of the cerebral cortex on the electric  
activity of the respiratory muscles of a cat. Fiziol. zhur. 49  
no.11:1345-1352 N 1963. (MIA 17:8)

1. Laboratoriya fiziologii tsikladiya Instituta fiziologii  
imeni A.A. Bogomol'tsa AN UkrSSR, Kiyev.

STOROZHUK, V.M.

On the evoked potential of the cerebral cortex with initial  
negativity. Fiziol. zhur. 50 no.1:20-25 Ja '64.  
(MIRA 18-1)

1. Laboratoriya elektrofiziologii Instituta fiziologii imeni A.A.  
Bogomol'tsa AN UkrSSR, Kiyev.

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CIA-RDP86-00513R001653410018-2

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CIA-RDP86-00513R001653410018-2"

ACC NR: A21267156

(A)

SCIENCE CODE: UR/216/217/218/219/220

ASSISTANT: Rivkinbaum, B. I. (Docent); Chervyskova, K. I. (Candidate of biological sciences); Nguyen Van N'yt (Aspirant); Velyavskaya, M. Ye. (Engineer); Kaushanskaya, L. Z. (Engineer); Storozhuk, V. N. (Engineer); Terletskaya, L. A. (Engineer); Tsvetova, S. G. (Engineer)

ORG: none

TITLE: Search for new operating conditions in sterilization of canned goods for projected continuously operative equipment

SOURCE: Ukraine. Ministerstvo vysshego i srednego spetsial'nogo obrazovaniya. Pis'movaya promyshlennost', no. 3, 1966, 103-112

TOPIC TAGS: food technology, food preservation, food sterilization, applied mathematics, food product machinery, processed plant product

ABSTRACT: New operative conditions for sterilizing tomato juice in an Odessa factory were worked out at the Odessa Technological Institute for the Food and Refrigeration Industry, based on a continuous operation (see Figure 1) with successive heating and cooling of 0.5 and 0.2 liter bottles filled with juice at 80-85 C and immersed in water of various temperatures. The sterilization temperatures tested were 100, 95, and 92 C. Temperatures in the bottle center were measured with a thermocouple. The

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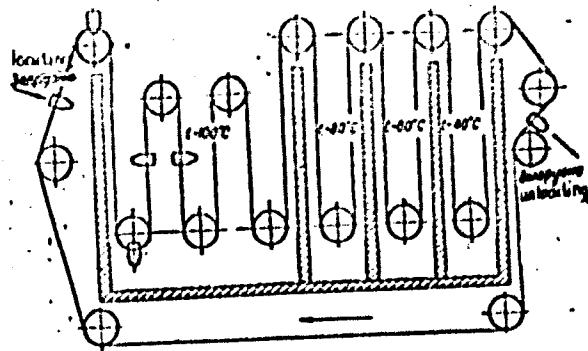


Figure 1. Schematic representation of continuous sterilization

data were mathematically processed according to Flamenbaum, B. L. (Pishchevaya  
tekhnologiya, 3, 1959). Earlier studies on survival of microorganisms in tomato juice  
were also considered. The formulas arrived at were experimentally tested. The  
general formula applied was  $A = \frac{1}{\alpha} (K_{A_1} + K_{A_2} + K_{A_3} + \dots + K_{A_n})$ .

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in the sterilizing effect,  $T$  is the time interval during which temperature in the sterilizer is recorded,  $K_A$  is the peroxidizing coefficient. The value of  $K_A$  was taken as a reliable indicator for sterilization, preferable to that of the "heat number". The  $K_A$  tests had determined 25 min for 90°C or 15-20 min for 95°C. New tests found that the same effect could be obtained 16% faster at 100°C for the 0.5 liter bottle and 10% faster for the 0.2 bottle at the same temperature. For the other temperatures, sterilization time figures were comparable to or higher than the older ones.

Comparative tests of the sterilization formulas with juice infected with *Penicillium* *chrysogaster*, *Penicillium* *niger*, yeasts and *Bac. mesentericus* *ruber*, then sterilized in sterilizer formula and kept at room temperature for 3 months or at higher temperatures for 6-8 days, gave satisfactory results. The formulas worked out are as follows: 100, 94 and 92°C and for the 2 sizes of bottles. Thus for 0.2 liter bottles the formula is 0-3-5-5-5/100°C, where the first figure indicates that the sterilization process proper is starting, the second gives the sterilization period, and the third, fourth and fifth give stepwise cooling in water baths of 80, 60 and 40°C. It was concluded that the formulas found had been proved reliable in sterilization tests. Orig. art. has 10 figures and 8 formulas.

05/15/ SUBJ DATA: none/ ORIG REF: 004/ OTH REF: 001

1922.2/3

STOROZHUK, Ya.P., kand. tekhn. nauk; SVYATSKIY, Z.M., kand. tekhn. nauk

Burning fuel oil in the combustion chamber of gas-turbine  
installations. Energomashinostroenie 4 no.10:24-28 O '58.  
(Gas turbines) (MIRA 11:11)

3,402

S/114/62/000/003/001/005  
E194/E155

26.2130

AUTHOR: Storozhuk, Ya. P., Candidate of Technical Sciences

TITLE: The operation of multi-swirler gas-turbine  
combustion chambers burning liquid fuel

PERIODICAL: Energomashinostroyeniye, no.3, 1962, 3-7

TEXT: As combustion tube diameters increase, the effectiveness of single swirlers falls off and combustion efficiency is impaired; accordingly multiple swirlers are being used with large combustion chambers. The TsKTI has tested three geometrically similar combustion chambers with flame tube diameters of 640, 510 and 400 mm. The tubes were made of steel 3R1T (EYalT), and the tube head carried five cylindrical swirlers with profiled blades installed at an angle of 60°. Below the head came five conical shells which overlapped with gaps between to admit cooling air. Air from the compressor having passed through the air heater is delivered to the bottom of the chamber outside the flame tube. It enters the tube partially through a mixer located below the conical shells, partly

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The operation of multi-swirler ...

E194/E155

through the gaps between the conical shells and partly through the head. To improve cooling, the top two shells were ribbed and then firing rates of about  $30 \times 10^6$  kcal/m<sup>3</sup> hour.atm could be achieved with satisfactory combustion. When necessary the primary and secondary air supplies could be kept separate. The temperature distribution was measured and gas samples were analysed. The tests were run on diesel fuel with excess-air factors between 1 and 2, with an inlet air temperature of 100 to 300 °C at an inlet pressure of 1.25 to 3.8 atm, with a fuel consumption of 136 to 490 kg/hour and an exhaust gas temperature of 680 to 700 °C. Single-stage centrifugal nozzles were used. The process of fuel combustion was practically identical in all three chambers over a wide range of gas flows. To assess the effect of pressure, tests were run in which the pressure alone was varied, usually between 1.5 and 3 atm, and within this range the nature of combustion was identical for all the chambers tested. In multi-swirler combustion chambers the fuel is well mixed with primary air; combustion is complete near the burner throat and the flame temperature is high. The main factors that

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The operation of multi-swirler ...

limit the rate of firing are the chamber diameter and the rate of air flow at discharge from the swirlers, which governs the turbulence. The smaller the chamber diameter (and naturally, therefore, the swirler diameter) the greater the maximum possible rate of firing for a given rate of gas flow. The combustion efficiency can be represented in terms of the same parameters as those used by E.G. Woodward (Ref. 2: Sixth Symposium on Combustion, Reinhold Pub. Corp., 1957), provided that they are written in terms of the rate of flow of air (by weight) at discharge from the swirlers. The distribution of air between different parts of the combustion chamber is discussed. As the ratio of the air inlet to the discharge temperature alters, the air distribution alters because of differential expansion of the chamber body and the fire tubes. The cooling air was not uniformly distributed among the slots between the conical shells; and because the expansion is greatest where the metal is hotter, the parts that require most air receive least. This point should be allowed for in design. The flow structure was identical in different geometrically similar combustion chambers. The axial velocity

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The operation of multi-swirler ...

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E194/E155

distribution is practically symmetrical across the chamber section. The tests provide a qualitative assessment of the processes of mixing of individual layers of gas-air mixture with pulverized fuel and so make it possible to assess their influence on the process of combustion stabilisation in multi-swirler chambers.

There are 7 figures.

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26.2181, 1961, *Scutellaria* sp. (Labiatae) - 1 specimen.

1920, and the first year of the new century, 1901, were the most

PART: In order to obtain the maximum flame temperature distribution  
temperature at which the walls of the flame tube have to withstand  
and to design the cooling system. The experiments were  
conducted in a series of cylindrical, similar chambers with diameters  
of 10, 15, 20 and 25 mm. Measurements were taken of the intensity  
of the flame, the flame temperature, the flame  
length from the flame, and the temperature of the cooling air.  
Under the conditions the temperature occurred in the zone of  
maximum flame tube wall temperature influenced  
heat release. The pressure inside the chamber  
the length of the flame and its opacity, and therefore the  
temperature distribution. As pressure increased, the hottest

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18. *Leucosia* *leucostoma* *leucostoma* *leucostoma* *leucostoma* *leucostoma* *leucostoma*

3324

S/114/62/000/004/001 008  
E114/2654

Heat radiation from ...

by Cr - Al [Abstractor's Note: obviously a printing error for chrome-alumel] thermocouples embedded in the cylindrical segments of which the wall was composed. One series of experiments was conducted at a constant Reynold's number in annular cooling air gap and at varying pressures and thermal loadings. The temperature of the ribbed segments near the burner decreased along their length, while the smooth segments further away from the burner remained at a uniform temperature, which was higher although the intensity of radiation there was less. The increase of pressure caused increase in temperature throughout the length of the flame tube. The second series of experiments was conducted at a constant thermal loading, excess air and inlet air temperature with Reynold's number in the first annular gap were left to vary with pressure. Although the quantity of cooling air increased with pressure, the temperatures of the burner head and the first segments which were opposite the zones of incomplete combustion rose

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5/114/62/000/004/001/008  
5114/3654

Heat radiation from ...

considerably. Temperature difference of the order of 300°C was found to exist along the length of the segment nearest the burner. It is recommended, therefore, to insulate the cold parts of segments forming the flame tube from the parts exposed to radiation. Cooling ribs were found to be effective. The temperature of the flame tube was greatly influenced by convection currents on the flame side and by the passage of air through annular gaps. Inside the tube cooling improved by the dilution of hot gases by cooling air entering through the annular gaps. Heat conducted away from the walls by convection was approximately given as  $Nu = 0.031 Re^{0.8}$ , where  $Re$  is the effective Reynold's number. A nomogram is given to determine the maximum temperature of the flame tube segments. There are 10 figures.

X

Card 4/4

STOROZHUK, Ya.P., kand.tekhn.nauk; ANTONOVSKIY, V.I., inzh.

Methods for calculating the maximum temperature of the flues of  
the combustion chambers of gas turbine systems operating on liquid  
fuel. Energomashinostroenie 9 no.1:47-48 Ja '63. (MIRA 16:3)  
(Gas turbines)

ACCESSION NR: AP4007443

S/0096/64/000/001/0059/0063

AUTHOR: Storozhuk, Ya. P. (Candidate of technical sciences);  
Asoskov, V. A. (Engineer)

TITLE: Problem of approximate modeling of the combustion processes  
in a GTU [gas turbine unit] combustion chamber

SOURCE: Teploenergetika, no. 1, 1964, 59-63

TOPIC TAGS: gas turbine, combustion chamber, combustion process,  
combustion process modeling, liquid fuel combustion

ABSTRACT: Similitude laws for scaling-up gas turbine combustion  
chamber models to full-scale units are analyzed on the basis of a  
generalized relationship for the combustion efficiency in terms of  
fuel droplet residence time in the combustion zone; full combustion  
time; evaporation, mixing, and burning times; Reynolds, Karman, Mach,  
and Prandtl numbers; fuel and air temperatures; air excess factor,  
and activation energy. From a previously derived relationship for  
the evaporation time (Yu. Kh. Shaulov, M. O. Lerner. Goreniiye v  
zhidkostnykh reaktivnykh dvigatelyakh. Oborongiz, 1961) the

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ACCESSION NR: AP4007443

following criterion for the complete evaporation was derived:

$$\tau_{ev} = \frac{Cd_k^2 w_{av}}{L_{fl}},$$

where  $C$  is  $\gamma 273/8D_{po}(t_k + 273)$ ,  $d_k$  is the characteristic droplet diameter,  $L_{fl}$  is the flame-tube length,  $t_k$  is the vapor temperature,  $\gamma$  is the specific weight of fuel,  $D_{po}$  is the diffusion coefficient at 0°C and 1 atm, and  $w_{av}$  is the average gas flow velocity. The invariance of the ratio of mixing time to residence time with respect to  $Re$ ,  $Ka$ ,  $M$ , and  $Pr$  is examined, and self-modeling regions of  $Re$  and  $Ka$  are defined. It is concluded that for modeling of a diffusional combustion process in chambers operating under self-modeling regimes with respect to  $Re$  and  $Ka$ , the following conditions must be fulfilled: 1) the model and the full-scale unit must be geometrically similar; 2) the fuel must be of the same type and have the same temperature; and 3) the fuel-air ratios, the temperatures of air and combustion products, and the evaporation criterion  $\tau_{ev}$  must be identical. The

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ACCESSION NR: AP4007443

results are illustrated by data obtained previously (Ya. P. Storoshuk, "Energomashinostroyeniye, No. 3, 1962) by the combustion of atomized solar oil in high-output combustion chamber models 0.61, 0.51, and 0.4 m in diameter. The graphs (see Fig. 1 of Enclosure) show that the combustion process was almost identical in all three chambers has: 17 formulas, 3 figures, and 2 tables.

ASSOCIATION: Tsentral'nyy kotloturbinnyy institut (Central Boiler-Turbine Institute)

SUBMITTED: 00

DATE ACQ: 23Jan64

ENCL: 01

SUB CODE: PR

NO REF SOV: 003

OTHER: 000

Card 3/4

ACCESSION #: APL012339

S/0096/64/000/002 '0039/0042

AUTHORS: Storozhuk, Ya. P. (Candidate of technical sciences); Antonovskiy, V. I. (Engineer)

TITLE: A study of the emissive properties of a flame in a single damper combustion chamber of a gas turbine

SOURCE: Teploenergetika, no. 2, 1961, 39-42

TERM CODE: flame emission, combustion chamber, air pressure, excess air coefficient, emission distribution, flue cooling, platinum platinum rhodium thermocouple, vacuum radiation thermal element, thermal radiation flux, gas blackness, infrared radiation

ABSTRACT: One of the problems which arose with the construction of the experimental gas turbine combustion chamber was the cooling of the flue metal. The development of a reliable method for calculating the wall temperature was hampered by the absence of experimental data on the emission characteristics of flame. Experiments were conducted varying several parameters (principally the air pressure and the coefficient of excess air). The chamber had a divided air supply for

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ACCESSION NR: AP4012339

independent control of primary and secondary air. Two types of flues were studied, both 364 mm in diameter and joined to a transition cone. One flue was continuous, the other in 3 sections, with a 4-mm annular gap between sections. For experimental purposes 2 dampers with a 45° and 52° tilt were available. Diesel fuel was sprayed from a centrifugal single-stage jet with a 75° flame. The variables of the air and fuel, the flame temperature, the normal total thermal radiation and gas composition were measured. The latter three were taken at the same cross section at 4 points along the flue. The flame temperature was measured with a suction platinum platinum-rhodium thermocouple. The gross flame radiation (luminous brightness) was measured with a vacuum radiation thermal element (VTE) with 2 sensitive elements, one of which was used for comparison of the surrounding temperature. It was sensitive to infrared radiation in the band 0.18-11  $\mu$  which was suitable according to the standards of D. I. Weeks and O. A. Saunders (Journal of the Inst. of Fuel, No. 209, 1958). The prescribed normal operating conditions were: volumetric thermal stress;  $4 - 8 \times 10^6$  large calories/m<sup>3</sup>·hr atmosphere, excess coefficient of primary air  $\alpha_1 = 1.15-1.8$ , air flow rate up to 5500 kg/hr, air temperature at chamber inlet  $t_B = 60-200^\circ\text{C}$ , pressure in the chamber  $p = 1.05-2.03$  atmospheres, and temperature of exhaust gases  $t_{ax} = 500-740^\circ\text{C}$ . The experimental installation permitted variation of each parameter. The first studies varied

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ACCESSION NR: APh012339

the excess air coefficient. The radiation increased to a greater extent in the initial sections of the flue and with lower air ( $\alpha_1 = 1.2-1.5$ ). An increase in the intake air temperature led to a decrease in the radiation at the measuring points as a result of the shifting of the active combustion zones to the flame root. The next study (conducted only on the segmented flue) varied the chamber pressure. The radiation sharply increased with an increase in pressure at the first 2 measuring points, especially with a small  $\alpha_1$ . Both damper settings were studied, and it was found that the larger angle setting caused more turbulence and shifted the maximum temperature zone (and thus radiation) to earlier stages of the chamber. The radiation at the end of the chamber was due to  $H_2O$  and  $CO_2$  and could be determined from graphs and formulas for nonluminous gases. Measured values exceeded a calculated value by 20-30%. This was attributed to variation in the temperature and in the composition of the gas and also to the presence of soot particles. The degree of blackness of the flame was determined from measured radiation and the calculated flame temperature. The experimental blackness values were 0.4-0.06, with their maximum values in the initial sections of the flue. The blackness at the end of the chamber was 0.08-0.06, which exceeded by 20-30% the value for pure 3-atom gases. The total degree of blackness of the flame was presented, using the principle of Bugar-Baer. The coefficient of absorption was

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ACCESSION NR: AP4012339

the sum of the coefficient of absorption of soot particles and 3-atom gases. The total coefficient of absorption was found to depend linearly on the pressure. Orig. art. has: 2 figures, 4 graphs, and 5 equations.

ASSOCIATION: Tsentral'nyy kotloturbinnyy institut (Central Steam Turbine Institute)

SUBMITTED: 00

ENCL: 00

SUB CODE: FP, OP

NO REF Sov: 002

OTHER: 001

Card: 4/4

ACCESSION NR: AP4041873

S/0170/64/000/007/0087/0090

AUTHOR: Storozhuk, Ya. P.; Antonovskiy, V. I.

TITLE: Determination of the hemispherical radiation flux of a flame by a radiometer with a small angle of view

SOURCE: Inzhenerno-fizicheskiy zhurnal, no. 7, 1964, 87-90

TOPIC TAGS: combustion chamber, flame tube, gas turbine, heat radiation

ABSTRACT: A method was developed for determining the hemispherical radiative heat flux passing from a flame to the inner surface of a cylindrical combustion chamber of a gas turbine. The method makes use of calorific brightness values experimentally determined with a radiometer in several cross sections at different flame thicknesses, i.e., with a movable cold background. Experiments and calculations were made with a combustion chamber (364 mm in diameter and 950 mm long) which was operated near atmospheric pressure with solar oil as fuel. The calculation of the heat flux is reduced to the determination of the parameter  $\Phi$  which accounts for the chamber

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ACCESSION NR: AP4041873

geometry and the nonuniformity of the emission characteristics inside the flame. For ratios of chamber length to diameter of 0.48, 0.9, and 2.3, the values of  $\phi$  were 0.75—0.76, 0.82—0.86, and 0.69—0.79, respectively. The scattering of  $\phi$  at a given relative distance from the register is caused by differences in primary air excess factors, which ranged from 1.2 to 1.6. Orig. art. has: 2 figures and 16 formulas.

ASSOCIATION: Tsentral'nyy kotloturbinnyy institut im. I. I. Polzunova, Leningrad (Central Boiler Institute)

SUBMITTED: 22Apr63                    ATD PRESS: 3074                    ENCL: 00  
SUB CODE: PR, TD                    NO REF Sov: 000                    OTHER: 000

Card 2/2

STOROZHUK, Ya.P., kand. tekhn. nauk; PAVLOV, V.A., inzh.

Gas and fuel oil burners with increased range of regulation.  
Energomashinostroenie 10 no.2:20-23 F '64. (MIRA 17:5)

СЕДОВИЧК, В.А., канд.техн.наук; АБСКОВ, В.А., инzh.

Approximate simulation of combustion in the combustion chambers  
of a gas turbine system. Техенергетика 11 no. 1:59-63 Ja 86.  
(MIRA 17:5)

1. Центральный котлотурбинный институт.

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L 17413-55 EWT(m)/T  
ACC NRI AF600h169WW/JW/WS  
(N)

SOURCE CODE: UR/0096/66/000/002/0028/0032

AUTHOR: Pavlov, V. A. (Engineer); Storozhuk, Ya. P. (Candidate of technical sciences)ORG: Central Boiler and Turbine Institute (Tsentral'niy kotloturbinniy institut)TITLE: Simplified method for determining dispersion of atomized liquid fuel || 255SOURCE: Teploenergetika, no. 2, 1966, 28-32

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B

TOPIC TAGS: fuel injector, fuel atomization, liquid fuel

ABSTRACT: The selection of the proper method for determining the dispersion of atomized liquid fuel greatly effects the correct evaluation of the performance of fuel injectors and combustors. Existing methods involve complex data reduction processes. The proposed method, based on the determination of the maximal diameter of an atomized fuel droplet in a sample, is simple and permits the use of existing sampling methods. The maximal diameter of the droplet can be calculated or determined graphically from the plot of the following function:  $\lg n = f(\delta^2)$ , where  $n$  is the number of droplets and  $\delta$  is the droplet diameter measured experimentally. The use of the proposed method is illustrated with concrete examples. Orig. art. has: 17 formulas and 4 figures. [AS]

SUB CODE: 21/ SUBM DATE: none/ ORIG REF: 004/ OTH REF: 002/ ATD PRESS: 4206

Card 1/1 set

UDC: 621.43.037.001.1

2. APPROVAL: 00513R001653410018-2 Date/Ref: 12/20/86  
APPROVAL DATE: APR 1965

3. 046-457000/001/0041/004

4. AUTHOR: Antonovskiy, V. I. (Engineer); Storozhuk, Ya. P. (Candidate of Technical sciences)

5. TITLE: The problem of flame radiation in combustion chambers of liquid fuel gas turbine engines.

6. SOURCE: Teploenergetika, no. 3, 1965, 41-47

7. TOPIC TAGS: combustion chamber, gas turbine, soot particle concentration, flame radiation, gas turbine engine

8. ABSTRACT: Experiments were conducted with a gas turbine combustion chamber (length, 550 mm; diameter, 360 mm) in order to determine the temperature field and soot particle concentration profiles. The results show that the distribution of soot particles in the flame is highly nonuniform. The soot particle concentration increases when the pressure increases, and the air excess factor, the turbulence intensity, and the air inlet temperature decrease. The distribution of soot particles in the cross section of a chamber is characterized by a profile with two maxima which coincide with the location of fuel-rich

Card 1/2

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ACCESSION NR: AP5006296

zones. The concentration was maximum close to the chamber head. The mean values of the concentration calculated with consideration of the temperature distribution field are 0.55-0.75 of the maximum value. A pressure increase leads to less complete combustion in the head part of the combustion chamber. This occurs even if the entire combustion process ends at the same or a smaller distance from the flame tube. An empirical relationship was derived for the soot particle concentration. Orig. art. has: 18 formulas and 5 figures.

[AC]

ASSOCIATIONS: Tsentral'nyy kotloturbinnyy institut (Central Boiler and Turbine Institute)

SUBMITTED: 00

ENCL: 00

SUB CODE: PR

NO REF Sov: 003

OTHER: 002

ATD PRESS: 3201

Card 2/2

ANTONOVSKIY, V.I., inzh., STOROZHUK, Ya.P., kand. tekhn. nauk

Radiation of the flame in the combustion chambers of gas turbine systems operating on liquid fuel. Teploenergetika 12 no.3: 41-47 Mr '65. (MIRA 18,6)

1. Tsentral'nyy kotloturbinnyy institut.

ACC NR: AP6009723 SOURCE CODE: UR/0114/66/000/003/0008/0011

AUTHOR: Pavlov, V. A. (Engineer); Storozhuk, Ya. P. (Candidate of technical sciences)

ORG: none

TITLE: Calculation and design of mechanical injectors

SOURCE: Energomashinostroyeniye, no. 3, 1966, 8-11

TOPIC TAGS: fuel injector, mechanical fuel injector, fuel atomization

ABSTRACT: A method is proposed for calculating the basic geometric parameters of a mechanical fuel injector. Formulas are given for determining the injector nozzle diameter, swirl chamber diameter, total area of tangential ducts, and the number of ducts. The derived formulas are based on experimentally determined performance characteristics of a number of fuel injectors of various designs. The use of the method is illustrated by a numerical example. Orig. art. has: 14 formulas and 4 figures.

[AS]

SUB CODE: 21/ SUBM DATE: none/ ORIG REP: 003/ OTH REP: 001  
ATD PRESS: 4222

Card 1/1

UDC: 621.43.037.001.24

L 22232-65 EFF(n)-2/EWT(m)/ETC(m)-6/r/EWF(f) 74/JW/WE  
ACC NR: AF6007309

UR/0096/66/000/003/0063/0068 75

AUTHOR: Storozhuk, Ya.P. (Candidate of technical sciences); Asoskov, V.A.  
(Engineer) <sup>B</sup>

ORG: Central Boiler and Turbine Institute (Tsentral'nyy kotloturbinnyy  
institut)

TITLE: Investigation of the combustion process // of a liquid fuel in the  
combustion chamber of a gas turbine installation with variable pressure //<sup>2</sup>

SOURCE: Teploenergetika, no.3, 1966, 63-68

TOPIC TAGS: combustion gas dynamics, gas turbine engine, combustion chamber,  
flow structure, combustion mechanism, liquid fuel

ABSTRACT: The combustion rate is determined by the rate of the slowest  
stage; it is therefore possible that, with changes in the operating  
conditions of the combustion chamber over wide limits, and also with  
changes in the geometric characteristics of the chamber and the type of  
fuel, one of the limiting stages may be replaced by another. In the  
article, the mathematic treatment of the problem is based on data from  
full scale gas turbine installations. Calculated results are exhibited  
in a series of curves. The effect of the aerodynamic characteristics on  
the combustion process is experimentally established, as well as the in-  
dependence of the flow structure of the pressure of the medium at identi-  
2

Card 1/2

UDO: 621.438.621.43.056.001.5

L 22289-66

ACC NR: AP6007309

cal blowing rates. A relation is established for the completeness of combustion as a function of the pressure; this permits the conclusion that the limiting stage in the combustion of liquid fuels with a drop size greater than  $100 \times 10^{-6}$  meters is the vaporization of the drops. There is also established an experimental relationship for the dependence of the completeness of combustion on the parameter which characterizes the relative vaporization time of the drops; this makes it possible to determine the completeness of combustion chamber. Orig. art. has: 14 formulas 7 figures and 1 table.

SUB CODE: 21/ SUBM DATE: none/ ORIG REF: 004

Card 2/2 nst

EREMELEVA, M.G.; SOTNIKOV, Yu.D.

Methods of determining the bread content in ground-meat dishes.  
Vop. pit. 23 no. 5:81 S-0 1st.

(MIRA 18:5)

1. Vsego-toksova gospodkava sushchastnoj kuchicheskaya  
stolitija.

VASIL'EV, A.A., inzh.; KLEBNIKOV, N.I., inzh.; SIRANOV, Yu.G., inzh., FOMICHEV, V.A., inzh.; MEL'NIK, V.F., inzh.; POTAPOVA, T.I., inzh.; KOLYUZHENY, G.G., inzh.; TAGIROVA, N.I., inzh.; SHIFMAN, G.I., inzh.; MOSS, A.A., inzh.; VASIL'EV, A.A., inzh., otv. na vypusk; KHTEROV, I.A., tekhn. red.

[Safety engineering regulations for operating traction substations and section liaison posts of electrified railroads] Pravila tekhniki bezopasnosti pri ekspluatatsii tiagovykh post-stantsii i postov sektorsicheskogo elektrifitsirovannykh zheleznykh dorog. Moscow, Transzheleznodorizdat, 1962. 202 p.

(MIRA 15:8)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye elektrifikatsii i energeticheskogo khozyaystva. 2. TeK Ministerstva putey soobshcheniya (for Khlebnikov). 3. Tsentral'nyy komitet prefsoyuzov (for Fomichev). 4. Morskovskaya zheleznyaya doroga (for Kolyuzhnyy). 5. Sverdlovskaya zheleznyaya doroga (for Tagirova). 6. Yuzhno-ural'skaya zheleznyaya doroga (for Shifman). 7. Zapadno-Sibirskaaya zheleznyaya doroga (for Stortz).

(Electric railroads--safety regulations)

"APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653410018-2

RECORDED IN THE 1960'S BY THE C.I.A. AS PART OF AN INTELLIGENCE PROGRAM. THE INFORMATION CONTAINED HEREIN IS UNCLASSIFIED AND IS FREELY AVAILABLE TO THE PUBLIC. THE INFORMATION IS PROVIDED "AS IS" AND MAY NOT BE ACCURATE OR CURRENT.

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CIA-RDP86-00513R001653410018-2"

STORTS, P.A.

A flax binder. Trudy MIMESKH 4 no.2:88-106 '59. (MIRA 15:4)  
(Flax) (Harvesting machinery)

STURUBLENKOV, Vladislav Pavlovich; FEDOROV, B.F., red.; SYCHEVA,  
V.A., tekhn. red.

[The lights of the beacons are burning] Goriat ogni maiakov.  
Murmansk, Murmanskoe knizhnoe izd-vo, 1962. 39 p.  
(MIRA 16:6)  
(Murmansk region--Fisheries--Labor productivity)

STOS', V.

Collective Farms - Accounting

Accounting of fulfillment of collective farm estimates on expenditures of capital investments. Kolkh. proiz., 12, No. 8, 1952.

Q. Monthly List of Russian Accessions. Library of Congress, ~~November 1952 - 1977~~, Unc1.

STOSH, I.I., gogadir-shtukatur

Continuous method for separate steps in dry wall construction  
using guide marks and gypsum patches. Rata. i izobr. predl. v  
stroi. no.2:69-69 '57. (MIRA 11:1)  
(Plastering)

34

PHASE I BOOK EXPLOITATION

SOV/5799

Unksov, Ye.P., Doctor of Technical Sciences, Professor, Ed.

Sovremennoye sostoyaniye kuznechno-shtampovochnoego proizvodstva (Present State of the Pressworking of Metals) [Moscow] Mashgiz, 1961. 434 p. 5000 copies printed.

Ed. of Publishing House: A.I. Sirotin; Tech. Ed.: B.I. Model'; Managing Ed. for Literature on the Hot Working of Metals: S.Ya. Golovin, Engineer.

Title: Kuznechno-shtampovochnoye proizvodstvo v SSSR (The Pressworking of Metals in the USSR) by: A.V. Altykis, D.I. Berezhkovskiy, V.P. Volkovitskiy, I.I. Girem (deceased), L.D. Gol'man, S.P. Granovskiy, N.S. Dobrinitskiy, A.I. Zimin, S. L. Zlotnikov, A.I. Kapalovskiy, P.V. Lobachev, V.M. Martynov, Ye.N. Motchnik, G.A. Navrotskiy, Ya.M. Oshrimenko, G.N. Rovinskiy, Ye.A. Stoika, Yu.L. Roshdestvenskiy, N.V. Tikhaisirov, Ye.P. Unksov, V.P. Shcheglov, and L.A. Shofman; Eds: Ye.P. Unksov, Doctor of Technical Sciences, Professor, and B.V. Rotnov.

Title: Kuznechno-shtampovochnoye proizvodstvo v CMEA (The Pressworking of Metals in the Czechoslovak SR) by: S. Burda, F. Hradil, F. Drastik, F. Zlatohlávek

Card 1/8

TRANSLATION OF TITLE (CONT.)

CS/5739

A. Malyutin, V. Krasik, V. Kudinov, V. Malyutin, K. Kryzhan, J. Novak, J. Simek, V. Vojtěch, L. Černý, K. Hora, J. Černý, V. Sibrtlý, and J. Šolc; 200;

A. Malyutin and M. Vlk.

PURPOSE: This book is intended for engineers and scientific personnel concerned with the pressworking of metals.

CHARACTER: Published jointly by Mashiz and SNTL, the book discusses the present state of the pressworking of metals in the USSR and the Czechoslovak Socialist Republic. Chapters were written by both Soviet and Czechoslovak writers. No personalities are mentioned. There are 129 references: 73 Soviet, 16 English, 3 German, 5 Czech, and 2 French.

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Ch. II. Methods of Calculating the Pressure for Forging in the Pressworking

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Card 6/8

Present State of the (Cont.)	SG7/5793
Ch. VIII. Scientific Research Work in the Field of Cold Impact Forging of Metals [F. Hrdlicka, Plant imeni Smidra, Brno]	355
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Card 7/8

MANTSEV, R....; MIRSKY, B.V.; CHARIKHOV, L.A.; VOSKOBONIKOV, V.G.; STOOSH, Ye.A.

For an overall mechanization and a wide spread automation in metallurgy.  
Metallurg 9 no.6:1-3 Je '64. (MIRA 17:9)

1. Direktor Gosudarstvennogo sovuznogo instituta po proyektirovaniyu agregatov staleliteynogo i prokatnogo proizvodstva dlya chernoy metallurgii (for Mantsev). 2. Direktor Gosudarstvennogo sovuznogo instituta po proyektirovaniyu metallurgicheskikh zavodov (for Gubert). 3. Glavnnyy inzh. Tsentral'noy laboratorii avtomatiki (for Charikhov). 4. Zamestitel' direktora Instituta novoy metallurgicheskoy tekhniki Tsentral'nogo nauchno-issledovatel'skogo instituta chernoy metallurgii im. I.P. Bardina (for Voskobonikov). 5. Zamestitel' direktora Vsesovuznogo nauchno-issledovatel'skogo i proyektirokonstruktorskogo instituta metallurgicheskogo mashinostroyeniya (for Stoosh).

STOSHICH, H.

YUGOSLAVIA/Diseases of Farm Animals. Diseases Caused by  
Viruses and Rickettsiae.

Abs Jour: Ref Zhur-Biol., No 9, 1958, 4615.

Author : Shebetich, Ch., Nikolic, B., Tokin, I., Milin-  
ovich, A., Stoshich, H., Khadzhinikolic, V.Inst :  
Title : Usefulness of the Combining and Complementing  
Reaction Method According to Altar, Serra and  
Gurin in Infectious Anemia Diagnosis of Cattle  
Animals.

Orig Pub: Acta veterin., 1957, 7, № 1, 33-46.

Abstract: On the basis of their investigations, the authors  
came to the conclusion that the modified combining  
and complementing reaction according to Altar does  
not prove to be a true antigen and antibody reaction

Card : 1/2

9

SIASIS, Bureau of Agric. Nuclear Energy, and Bureau of Materials

Nuclear research, and training in forestry, Nuclear Energy  
Line. 136 JI 164.

1. Institute for the Application of Nuclear Energy in Agriculture,  
Agricultural Medicine, and Forestry, Zemun.

"APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653410018-2

1981, Inc.

Patent of swine. Registered. Arizona. 1981. 10-1.

APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653410018-2"

STOSIC, Darko, dr (Simina 22a, Beograd); Ruzicic, Nikola, dr, redovni profesor; MILOSEVIC, Perisa, dr, docent; PANIC, Bozidar, inz., asistent; MARTINOVIC, Borka, asistent

Study of the degree of homogenization in the mixtures of livestock fodder by applying radioactive isotopes. Technical and economical aspects. Tehnika Jug 17 no.6:Suppl.: Radioizotopi zrac 1 no.6:1050-1056a Je '62.

1. Savetnik Savezne komisije za nuklearnu energiju, Beograd.
2. Poljoprivredni fakultet Univerziteta u Beogradu (for Ruzicic, Milosevic Panic).
3. Institut za primenu nuklearne energije u poljoprivredi, veterinarstvu i sumarstvu, Zemun (for Martinovic).

"APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653410018-2

April, later.

The effect of manures and fertilizing on plants. Belgrade, Belgrade Knjiga, 1960. 140 p.

APPROVED FOR RELEASE: 08/26/2000

CIA-RDP86-00513R001653410018-2"

✓ The richness and fertility of several Serbian soil types. Lazar Stojčić and Radmila Stepanović (Inst. Agr. Chern., Topčider-Belgrade). *Zemljopis i Poljka* 2, 19 (4) 1951. — Three soils have been examined: The black soil (I), the brown soil (II), and the podzol (III). They have been analyzed for total and mineral N, total and assimilable  $P_2O_5$ , total and granular-assimilable Ca, pH in  $N\ KCl$ , and  $CaCO_3$ , and granulometrically. The results can be summarized as follows: All 3 soils need  $CaCO_3$ , but III needs most, and I needs the least amt. III needs org. N fertilizers, such as urea, for II and III the right N balance can be brought about by doses of manure only. I, as a rule, will have enough  $P_2O_5$ , but II and III need superphosphate. I and II need small doses of K, but III needs rather heavy doses. W. Jacobson

2

Steacie, L.

7061  
H. H. Steacie, L. Steacie, RETICULOCYTIC CHANGES IN THE NEWBORN RAT AFTER X-RADIATION. A. P. K. Kao and L. Steacie (Hornbeam Research Inst. for Nuclear Sciences, Harwell). Nature 178, 321-322 (1957) April 26.

PETROVIC, Dimitrije, Dr.; STOSIC, Ljiljana

Thorn's test in children with latent or manifest pellagra.  
Higijena, Beogr. 7 no.1-4: 363-368 1955.

1. Higijenski institut MZ Srbija, Beograd.

(PELLAGRA, in inf. & child  
diag., Thorn's test (Ser))

(ADRENAL CORTEX, funct.

Thorn's test in diag. of pellagra in child. (Ser))

YUGOSLAVIA / Diseases of Farm Animals. Diseases Caused by  
Viruses and Rickettsiae.

R-2

Abs Jour : Ref Zhur - Biol., No 17, 1958, N. 78953

Author : Lepcovic, E.; Nikolic, B.; Cirić, V.; Stosic, N.;  
Đorđević, O.

Inst : Not Given

Title : New Febrile, Hemorrhagic and Infectious Illness in Dogs.

Orig Pub : Veterin. glasnik, 1957, 11, No 8, 752-760

Abstract : A feverish condition, bleeding from all mucous membranes and skin hemorrhaging were basic symptoms. There were noted: thrombo-cytopenia, increase of the coagulation time of the blood, depression of the formation of thromboplastin, increase of the quantity of alpha and beta globulins and decrease of the quantity of the gamma globulin. The illness proceeded into an acute (death in 1 - 2 days) or subacute form. In the latter case, hemor-

Card 1/2

STOJIC, I.

STOJIC, I. Use of salt baths for heat treatment of metals. p.55.

Vol. 4, No. 3, March 1955

KEMIJAU INDUSTRIJI

SO: Monthly List of East European Accessions, (EEAL), LC, Vol.5, No.3  
March, 1956

STEVIC, P.

Casehardening in the Carbogene salt bath. p. 239.  
Vol. 11, No. 2, 1956. TEHNIKA. Beograd, Yugoslavia.

SOURCE: East European Acquisitions List, (EEAL) Library  
of Congress, Vol. 5, No. 8, August, 1956.

SIMIC, B. S.; STOSIC, S.; RAKOVIC, V.; LAZOVIC, Z.; MARKOVIC, R.; NIKOLIC, D.;  
LALOVIC, O.; DOKMANOVIC, M.

Nutrition and nutritional conditions of female students in the home  
"Vera Blagojevic". Hemoglobin, total serum proteins and hematocrit  
as indices of nutritional conditions. Glas. hig. inst. 9 no.3/4:51-57  
JL-D '60.

(NUTRITION SURVEYS) (HEMOGLOBIN) (BLOOD PROTEINS)  
(BLOOD CELLS) (STUDENTS)

STOŠIĆ, Slobodan T., dr.

Nutrition survey among workers of the industrial plant "Zmaj" in  
Zemun and "Ivo-Lola Ribar" in Železnik in 1959 and 1960. Glas. hig.  
inst. 9 no. 3/4:63-78 J1-D '60.

1. Zavod za narodno zdravlje NO grada Beograda (Direktor Dr. Rat.  
Bulaković)

(NUTRITION SURVEYS) (OCCUPATIONS AND PROFESSIONS)

BABIC, Dusan; STOSIC, Zagorka

Diabetes insipidus appearing during the course of bronchial carcinoma. Srpski arh. celok. lek. 90 no. 9:851-855 S '62.

1. Interna klinika A Medicinskog fakulteta Univerziteta u Beogradu Upravnik: prof. dr. Branislav Stanojevic.  
(DIABETES INSIPIDUS) (BRONCHIAL NEOPLASMS)

S

SIMIC, B. S.; MARKOVIC, R.; STOSIC, S.; NIKOLIC, D.; LAZOVIC, Z.; RAKOVIC, V.;  
LALOVIC, O.; DOKMANOVIC, M.

Nutrition and nutritional status of students. Some body characteristics  
resulting from different forms of nutrition. Higijena 13 no.2:117-122  
'61.

(NUTRITIONAL SURVEYS) (BODY WEIGHT)  
(BODY HEIGHT) (STUDENTS)

1957-1961

Dr. M. MARIĆ and ZAGORIĆ STEČIĆ, Internal Medicine Clinic A, Medical Faculty of University (Lekarska Klinika & Medicinskega fakulteta Univerziteta) and (Lekarski) Prof. Dr. Franislav STANOJEVIĆ, Belgrade.

"Diabetes insipidus as a Complication of Bronchial Carcinoma."

Beograd, Časopis Akademije Naučenja i Lekarstvo, Vol 60, No 9, Sept 1961; pp 331-333.

Abstract (English summary modified): Development of diabetes insipidus following neurohypophyseal metastasis of bronchial carcinoma, difficult differential diagnosis, patient (62-year-old male) long treated with tuberculostatic drugs. One slide, 4 Western references.

STOGKOVA, N.N.

Metallographic study of early Russian manufactured objects.  
Trudy po ist. tekh. no.4:126-134 '54.  
(Metallography) (Metalwork) (MLRA 7:9)

STOSKOVA, N.N.

A book on the development of technology in Czechoslovakia  
("The history of our technology" [in Czech]. R. Stechmiler.  
Reviewed by N.N. Stoskova. Vop. istor. i tekhn. no.1:293-  
297 '56. (MLRA 9:10)

(Czechoslovakia--Technology--History)

STROSKOVA, N.N.

The "splash" method of founding in old Russ. Vop. ist. est. i tekhn.  
no.1:151-157 '56.

(MLRA 9:10)

(Founding)

STOSKOVA, N.N.

"Natural science in medieval Bulgaria" (in Bulgarian with summaries  
in Russian and French). Reviewed by N.N. Stoskova. Vop. 1st. est. 1  
tekh. no.6:210-211 '59. (MIRA 12:6)  
(Bulgaria--Science)

STOSKOVA, N.N.

Location of the Tula ("Gorodishche"), first in Russia blast  
furnace plants. Trudy Inst.ist.est.i tekhn. 25:201-214 '59.  
(MIRA 13:4)  
(Tula--Metallurgical plants)

STOSKOVA, N. N.

Appearance of iron and first attempts to produce it. Trudy Inst.  
ist.est.i tekhn. 33:228-248 '60. (MIRA 13:8)  
(Iron—Metallurgy)

STOSKOVA, Nina Nikolayevna; FEDOROV, A.S., otv. red.; RUDNEVA, I.I.,  
red. izd-va; POLENOVA, T.P., tekhn. red.

[First metallurgical plants in Russia] Pervye metallurgicheskie  
zavody Rossii. Moskva, Izd-vo Akad. nauk SSSR, 1962. 104 p.  
(MIRA 16:1)  
(Iron and steel plants)

100-3489

Role of palpebral activity of the brain mechanism of pigeons in  
spatial analysis of visual stimuli. Vestn. MGU ser. 3:79-86 '65.  
(VIZRA 18:2)

LTGSMAN, I.M.

Role of the paired activity of the midbrain in birds in the space  
analysis of visual stimuli. Vest. IAU 20 no.21:77-84 '65.  
(MIRA 18:12)

ACC NR: AT7006189

SOURCE CODE: UR/2822/66/000/007/0136/0141

AUTHOR: Stosman, I. M.

ORG: Department of Physiology of Higher Nervous Activity, LGU (Kafedra fiziologii vysshey nervnoy deyatel'nosti).

TITLE: Effect of brain commissurotomy on the daily activity of pigeons

SOURCE: Leningrad. Universitet. Fiziologicheskiy institut. Nervnaya sistema, no. 7, 1966, 136-141

TOPIC TAGS: biologic rhythm, central nervous system, animal physiology, bird, ~~animal experiment~~

ABSTRACT: This study was designed to determine the effect of cerebral commissurotomy on the daily motor activity of 14 domestic pigeons (*Columba livia*). The birds were actigraphically monitored by means of cages with movable floors. Commissurotomy was performed according to Stosman's method (1965). Prior to operation, the intact birds were studied for ten days. Statistical results of this experiment are shown in Table 1. These data

Card 1/3

UDC: none

ACC NR: AT7006189

Table 1. Comparative characteristics of the effect of commissurotomy on the motor activity of pigeons.

Type of commissurotomy	No. of pigeons	8:00—10:00 AM		12:00—2:00 PM		a
		Before operation	After operation	Before operation	After operation	
No. of movements						
Com anterior	3	72.0 $\pm$ 6.70	40.0 $\pm$ 3.15	>0.970	2.0 $\pm$ 3.0	>0.970
Com posterior	4	54.7 $\pm$ 4.63	31.5 $\pm$ 2.43	>0.982	65.3 $\pm$ 4.2	>0.974
Com supraoptica dorsalis	3	59.33 $\pm$ 5.63	51.33 $\pm$ 9.67	<0.391	54.6 $\pm$ 8.39	<0.893
Control operation (no commissurotomy)	2	53.0 $\pm$ 5.0	50.0 $\pm$ 1.57	<0.603	63.0 $\pm$ 3.0	<0.795
Maximum value of movements in mm						
Com anterior	5	9.4 $\pm$ 0.50	4.6 $\pm$ 0.32	>0.999	9.6 $\pm$ 0.55	>0.999
Com posterior	4	7.5 $\pm$ 0.41	4.3 $\pm$ 0.41	>0.999	8.23 $\pm$ 0.6	>0.999
Com supraoptica dorsalis	3	8.33 $\pm$ 0.43	7.33 $\pm$ 0.73	<0.333	7.0 $\pm$ 1.33	<0.333
Control operation (no commissurotomy)	2	7.5 $\pm$ 0.7	7.0 $\pm$ 0	<0.339	7.3 $\pm$ 0.7	<0.339

Card 2/3

ACC NR: ATT-001653410018-2

Showed that commissurotomy of the com. anterior significantly depressed motor activity and subsequently, daily activity patterns. Maintenance of normal tonus is evidently a function of a normal volume of impulsion between both forebrain hemispheres. Orig. art. has: 1 table and 2 figures.

[CD]

SUB CODE: 06/ SUBM DATE: none/ ORIG REF: 009/ OTH REF: 001/  
ATD PRESS: 5117

Card 3/3

GAVRILESCU, S., dr.; FALCOIANU, A., dr.; STOSSEL, S., dr.; WEISS, S. dr.;  
STRASIAN, C., dr.; BRAUNKA, I., dr.

The carotid sinus hyperreflexivity syndrome. (a clinical and  
functional study). Med. Intern. (Bucur) 17 no.5:561-570  
May 1965.

1. Lucrare efectuata in Clinica I medicala (conf. S. Gavrilescu)  
si Laboratul de electroencefalograma al Clinicii de neurologie  
(prof. A. Sofletea, Timisoara).

STOSZEK, J.

The effect of the suspension system of attaching tools on the development of agricultural tractors. p.67

TECHNIKA MOTODRUGA, (Narodna Organizacja techniczna)  
Warszawa, Poland. Vol.9, no.2, Kwi. 1959

Monthly List of East European Accessions Index, (EEAI) LC, vol.5, no.6  
June 1959  
Incl.

CHCOSLOVAKIA

HRIVNÁK, J; STOŠA, A; VOLKAL, J; SUBÍKOVÁ, A.

Research Institute of Agrochemical Technology (Forschungs-  
institut für agrochemische Technologie), Bratislava  
(for all)

Prague, Collection of Czechoslovak Chemical Communications,  
No 10, 1965, pp 3272-3277

"Gas Chromatographic Determination of Chloroformic Acid  
Alkylesters."



*Method of testing soil fungicides. Miroslav Tomáš, Zdeněk Šlota, and Miroslav Škrabal (Výsk. Ústav Agrochem. Technol., Bratislava, Czech.). Biologia 11, 12-21 (1976). A method is described by using as test objects radish and *Rhizoctonia solani*. Fungicidal, phytotoxic, and herbicidal properties of 10 com. preps. are evaluated.*

*L. J. Utzbeck*

*Med 3*

CZECHOSLOVAKL/Chemical Technology - Chemical Products and  
Their Application - Pesticides.

H-18

Abs Jour : Ref Zhur - Khimiya, No 3, 1958, 9118  
Author : Toman Miroslav, St'ota Zdenek  
Inst : -  
Title : The Activity of Pentachloranisole Against Tilletia foetida  
(Wallr.) Liro in Field Tests.  
Orig Pub : Pol'nohospodarstvo, 1957, 4, No 3, 583-586  
  
Abstract : In field tests a protectant containing pentachloranisole  
was found to be less reliable against Tilletia foetida  
(Wallr.) Liro on winter wheat, than hexachlorobenzene  
and pentachloro-nitrobenzene, at dosages used in practice  
(200-400 mg per 1 kg seed).

Card 1/1

3

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CIA-RDP86-00513R001653410018-2"

CZECHOSLOVAKIA / Chemical Technology. Pesticides. H-18

Abs Jour: Ref Zhur-Khimiya, No 23, 1958, 73822.

Author : Nagdolen, T., Stota, Z.

Inst : Not given.

Title : The Preparation of 1,2,4,5-Tetrachlorobenzene  
by Continuous Method.

Orig Pub: Chem prumysl. 1958, 8, No 1, 11-13.

Abstract: For the preparation of  $1,2,4,5\text{-Cl}_4\text{C}_6\text{H}_2$  (II),  
which is a mixture of isomers, obtained by de-  
hydrochlorination of non-toxic isomers of  $\text{HCCH}$   
 $\text{/sic/}$  hexachlorocyclohexane, the chlorine is in-  
troduced in amount of 40% in respect to the amount  
theoretically needed for the total conversion of  
II into I. In the first place, non-symmetrical  
II is chlorinated, which transforms to I. The  
chlorination is carried out at  $100^\circ\text{C}$ . in the pre-

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CZECHOSLOVAKIA / Chemical Technology. Pesticides. H-18

Abs Jour: Ref Zhur-Khimiya, No 23, 1958, 78822.

Abstract: I and highly chlorinated derivatives 4; underneath the C, Cl<sub>2</sub> is delivered at a rate of 270 grams/hour. The chlorination is carried out at 100-120°C. The HCl produced is diverted into the absorption column. The product is transferred from the bottom of RC into a crystallization unit, where it is cooled to 15°C. The crystals are filtered off, washed with III, filtered off once again and dried. For the chlorination over a period of 3 hours, 5,100 grams of II and 810 grams of Cl<sub>2</sub> were needed. There was obtained

2,500 grams of the product, from which after washing with 2,500 grams of III, 2,120 grams of I was separated in a 35% conversion, having a m. p. of 133-134°C. The pilot plant installation

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30

POLISH / Chemical Technology. Chemical products and their applications. Fungicides. H-19

Abs Jour: Roc Zhar-Khimiya, No 3, 1959, 9465.

Author : St'ota, Z., Toman, H.

Inst : Not given.

Title : A Study of the Action of Some Hexachloro-Substituted Benzene Derivatives on *Tilletia Foetida* (Tallr.) Liro.

Art Pub: Biologia, 1958, 15, No 2, 124-136.

Abstract: Fungicidal activity was tested of hexachloro- (I), and pentachloronitrotoluene (II); 1,2-, 1,3- and 1,4-dinitro-trichlorobenzene; pentachloraniline; tetrabrom-n-xylel; pentachloranisole; 2-methyl esters of pentabrom- and pentachlorpyromethochin; 1,3-dinitro 2, 4, 5-trichlorobenzene on wheat grains infected by *Tilletia foetida* (Tallr.) Liro. I and II are effective. -- I. Milshteyn.

Card 1/1

Distr: 4E2c(j)/4E3d

VTrichlorobenzene from hexachlorocyclohexanes. Dimitri  
Vrana, Zdenek Siga, and Jaroslav Autman Czech  
92,746, Nov. 18, 1959. The title procedure is carried out in  
several steps at normal pressure with catalysis by alk.  
hydrotides.

L. J. Fitchett

1  
1-29(NB)  
2

The identification of 2,4,5-trichlorobenzensulfonyl chloride and its derivatives. Zdenek Stota (Výzkumný ústav agrochem. technol., Bratislava-Prešov, Czech.). *Chem. měsičník* 13, 82-7 (1959). — 2,4,5-Cl<sub>3</sub>C<sub>6</sub>H<sub>3</sub>SO<sub>2</sub>Cl was prep'd. by sulfonation of 1,2,4-C<sub>6</sub>H<sub>3</sub>Cl<sub>2</sub> and treatment with PCl<sub>5</sub> or by direct sulfochlorination and detd. as the anilide, 2-chloroanilide, Ph ester, p-ClC<sub>6</sub>H<sub>4</sub> ester, and 2-C<sub>6</sub>H<sub>5</sub> ester of 2,4,5-Cl<sub>3</sub>C<sub>6</sub>H<sub>3</sub>SO<sub>2</sub>Cl. 2,4,5-Cl<sub>3</sub>C<sub>6</sub>H<sub>3</sub>SH was detd. as 2,4,5-Cl<sub>3</sub>C<sub>6</sub>H<sub>3</sub>S-C<sub>6</sub>H<sub>4</sub>(NO<sub>2</sub>)<sub>2</sub>-2,4.

7

3  
2 May  
4E-3d  
4E-2c f1

260

STOTA, Z.

On some N-alkyl-2,4,5-trichlorobenzenesulfonamides. Coll Cz Chem 27  
no.8:2015-2017 Ag '62.

1. Forschungsinstitut fur agrochemische Technologie, Bratislava.

HRIVNAK, Jan; MICHALEK, Milan; STOTA, Zdenek

Determining the phthalimide content from the melting point of  
binary mixture. Chem prum 13 no.1:18-19 Ja '63.

1. Vyskumny ustav agrochemickej technologie, Bratislava.

KRSEK, J.; STOTA, Z.

Di- and trinitrophenyl ester of some N-substituted dithiocarbamide acids. Coll Cz Chem 28 no.11:3159-3162 N'63.

1. Forschungsinstitut für agronomische Technologie, Bratislava.

### SEARCHES

**\* Detection of the Glucosidase-Substrates by Fluorimetry to Facilitate Neoglycolipid Isolation and the Possible Use in the Isolation of Glycogen**

Dr. Edward L. Lusk, Lusk, 1922, No. 12, p. 151-62.  
pp. 118-119.

STVTA, Z.; SCHIESSL, O.

Preparation of 2,3-dichlorophenol. Coll Cz Chem 29 no.4:  
1077-1078 Ap '64.

1. Research Institute of Agrochemical Technology,  
Bratislava.

L 1630-66ACCESSION NO. AP02426730  
CZ/0043/64/000/009/0692/0697 B

AUTHOR: Hrivnak, J. (Grivnyak, Ya.) (Engineer, Candidate of sciences) (Bratislava);  
Shteta, Z. (Shteta, Z.) (Engineer) (Bratislava)

TITLE: Determination of isomers of trichlorobenzene by gas chromatography

SOURCE: Chemicke zvesti, no. 9, 1964, 692-697

TOPIC TAGS: isomer, gas chromatography, benzene, chlorinated organic compound

ABSTRACT: A method is described of determining all isomers of dichlorobenzene, trichlorobenzene, and tetrachlorobenzene in the technical-grade trichlorobenzene by means of gas chromatography. 1,1,1-trichloro-2-methyl-propane-2-Ol was used as the "inner standard. "We thank Eng. M. Livarov for execution of fractionation analysis and graduate chemist E. Sohler for technical assistance." Orig. art. has 1 figure, 1 graph, and 3 tables.

ASSOCIATION: Vyskumny ustav agrochemickej technologie, Bratislava (Research Institute for Agrochemical Technology)

SUBMITTED: 27Jan64

ENCL: 00

SUB CODE: OC, GC

NR REF Sov: 000

OTHER: 007

JPRS

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L 33691-66 EWP(j) RM/JW  
ACC NR: AP6024208

SOURCE CODE: CZ/0043/65/000/011/0046/0049

AUTHORS: Grivnyak, Jan—Grivnyak, Ya. (Engineer; Candidate of sciences; Bratislava);  
Stota, Zdenek—Shtota, Z. (Engineer; Bratislava); Dolešal, Josef—Dolešhal, Ya. (Engineer; Bratislava)

B

ORG: Research Institute for Agricultural Chemical Technology, Bratislava (Vyskumny  
ustav agrochemickoj technologii)

TITLE: Separation of alkyl carbonates of 2-phenyl-4,6-dinitrophenol by gas chromatography

SOURCE: České zvěsti, no. 11, 1965, 846-849

TOPIC TAGS: gas chromatography, chemical separation, organic nitro compound, analytic chemistry, chemical purity

ABSTRACT: Direct determination of n- and iso-alkyl (C<sub>1</sub>-C<sub>8</sub>)-carbonates of 2-phenyl-4,6-dinitrophenols was studied by means of gas chromatography. Polyethylene-glycol adipate, Aprezon L, and silicon grease SE 301 were used as anchor phases, nitrogen as carrier gas, and detection was made by a flame ionization detector. Practically, the method is suitable for determination of purity and the analysis of some products. Orig. art. has: 2 figures and 1 table. [JPRS]

SUB CODE: 07 / SUBM DATE: 04Mar65 / ORIG REF: 002 / OTH REF: 012

Card 1/1 PB

1059

SISTANOV, V.

Cause of stripes forming on cotton material and how to partially remove them after tinting. ;. 25. LEKA POMISHHENOST. Sofiyn. Vol. 5, no. 2, 1956.

SOURCE: East European Accessions List. (EEAL) Library of Congress. Vol. 5, No. 8, August 1956.

KALASHNIKOV, N. V.; STOIKHII, L. R.

International unit system. Keph. obuv. prem. 4 no. 10:31-34  
0 '62. (MIRA 15:10)

(Units)

STOTIK, A.M.

Use of plastics abroad. Zhivotnovodstvo 20 no.9:33-35 S '58.  
(MIA 11:10)

(Plastics) (Farm equipment)